

Fundamentals of Welding Day to Day Planning

SL No.	Day No.	Theory Session (90min)	Topics	Practical session (4hr 45 min)	Topics	Remark
1	Day 1	MC, RNB & SS	Inauguration by Dignitaries Introduction- Keepsake CoE, Safety protocols of Center-MC. Setting the context by RNB	Pre training assessment in the training hall 11:30 to 12 pm. Methods of measurement- SS, & JK (Practical). Identification of metal.	Pre training assessment . Measurement Practical (Plate). Spark Test.	Vernier, measure tape, filler gauge, BCG gauge, right angle etc. Metal samples for identification. Equipment to be kept in the training room
2	Day 2	Dr. GH Upadhyay	Introduction to Gas cutting & Grinding - with Safety	SS & JK	Gas Cutting Practice . Grinding practice on plate	Equipment to be kept in the training room for explanation
3	Day 3	RNB & SS	Types of welding - SMAW process, power source & equipment	SS & JK	Practice on Welding Simulator	
4	Day 4	Prof. D K Patel & SS #	Types of welding - MIG & TIG process, power source & equipment	SS & JK	Practice on Welding Simulator	
5	Day 5	SS	Types of Welding Position & Joints. Electrode & filler material	SS & JK	welding Practice on Actual Power Source	
6	Day 6	Dr. Mrunal Chaud	Welding metallurgy. Pre-Heating & Post heating during	SS & JK	Welding Practice on Actual Power Source	Microscope, microstructures of Metal

		hari (+ RNB) #	welding			
7	Day 7	SS & JK	Types of Welding Defects, Causes & Remedy	SS & JK	Welding Practice on Actual Power Source	
8	Day 8	NC + SS	DT, NDT & X-ray film review	SS & JK	Practice DPT	
9	Day 9	MRB & Team	Automation in Welding	GH & SS	Industry Visit to Manufacturing set - up	
10	Day 10	Aga Khan Trust (MC & RNB)	Getting ready for job.	Post-training assessment & review in the training hall 11:30 to 1 pm. Feedback on training - SS & JK	Final Assessment, feedback & Certificate Distribution by Dignitaries	

Total - 15 hr theory

Total - 47 hr 30min. Practical

Total - 62 hr 30min. Training program

MC	Jahid Khan	
RNB	Manan R Bateriwala	
SS	Gulam Hussain	
NC		

Bach No: 2018-2019/Keepsake/B4

A report about the Short-Term Training Program on “Beginners/Fresher Welding Training Course” at the GTU’s Keepsake Welding research and skill development center at the at L.D College Engineering.

- **Course Name:** Beginners/Fresher Welding Training Course
- **Trade Name** Fabrication
- **Duration:** 12/07/2018 to 21/072018
- **Venue:** Keepsake Welding research and skill development center at the at L.D College Engineering
- **No of participant:** 25
- **Inauguration function date:** 12/07/2018

GTU has established Skill Development Center in Welding Sector at L.D College Engineering. To develop such center Keepsake Engineering Consultancy Pvt.Ltd (Industry Partner), CED and GTU (Host Institute) work jointly.

During the 12/07/2018 to 21/072018, “Fundamentals of Welding Technology” tanning was arranged under the Keepsake Welding Research & Skill Development Centre at the L.D College Engineering.

Welding & Fabrication technologies are the most important job skills for Mechanical Engineers. It is very essential technology in Industrial infrastructure development such as erection, commissioning of pipes, shipping, Power plants, steel plants, cement plants etc. The course curriculum includes classes by faculty, video classes, PowerPoint presentations. This is pure workshop training and it gives the opportunity to the students, hands on experience on welding & fabrication equipment, safety engineering, plant technologies etc.

Objective of the Tanning Program:

The Internationally accredited Welder (Fabrication & Fitting) Courses classroom training and Onsite training program improve your technical skill and that you bring to expand your career potential, it will help you to achieve a standard professional career.

Topic covered under the Tanning Program:

- Introduction to Welding, Material selection, Design considerations, Mathematical calculations, Formulas
- Safety instructions and checklist, Personal protection, Welding fumes, Work site protection
- Cutting, Joining, rebuilding, hardfacing, Coating, cold repairs,
- Filler material consumption, Metal identification, Evaluation of welds
- Coated Electrodes, TIG Welding Rods & Fluxes, Wires for Wire Welding, Gas Welding Rods & Fluxes, Brazing Rods & Fluces
- Arc Welding: Electrode welding & gouging, TIG Welding, Wire Welding, Plasma Cutting, Current Distribution System
- Gas Welding: AC/OX cutting, welding, brazing, Gas Supplies and gas distribution system

Course syllabus – Fabrication

- Introduction to fabrication, Design considerations, Mathematical calculations, Formulas, Codes and Standards

- Material selection, Method selection for production and fabrication, Different Metals available for Metal Fabrication,
- most common forms of stock sizes and materials, metal fabricator's tool box
- Occupational hazards, personal safety, Workplace safety

Outcome of the training Program:

In this hands-on welding job training program, you'll get the skills and training you need for a job as a welder. Practice shop safety, shop math, shop English, and blueprint interpretation. Learn essential welding theories such as SMAW process, GTAW process, GMAW process, FCAW process, as well as the Oxy-Fuel process. After getting lectures on the welding processes, you'll be assigned projects- just like in a real job. You'll become familiar with the various tools and equipment such as grinders, cutters and welding machines. Once you graduate, we will help you find a job in the welding field.